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TABLES

FOR COMPUTING

EXCAVATION AND EMBANKMENT

ON

RAILROADS AND CANALS;

FOR CHAINS OF ONE HUNDRED FEET AND SLOPE OF THREE TO TWO.

COMPILED BY
JOSIAH HUNT, CIVIL ENGINEER.

PROVIDENCE:
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EXPLANATION OF TABLES.

The following Tables are computed for chains of 100 feet; being the length in ordinary use on New-England Railroads—and for a slope of three to two—this slope being generally taken for the basis of calculation in original estimates.

Opposite the number in the first column, denoting the mean depth of cutting, or filling at two adjoining stations, the cubical quantities for the different width of base, will be found under their respective heads.

The numbers in the tenth column, (headed "Cor.") denote the number of yards to be added for the difference in depth at the two stations, which is uniform for any width of base.

For example.—Suppose the depth of cutting at two consecutive stations to be 10 feet and 32 feet, (the base being 20 feet;) opposite 21 feet the mean cutting, and under 20 feet base, is found 4006 yards; and opposite 22 feet, the difference in cutting, in the column headed "Cor." is found 224 yards, which added to the 4006, gives 4220 yards, the quantity sought.

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
.1	5	6	6	7	8	9	11	13	0.
.2	11	11	12	14	15	19	23	26	0.
.3	16	17	18	21	23	28	34	38	0.
.4	22	23	24	28	31	38	48	51	0.
.5	27	29	31	35	38	48	57	64	0.
.6	33	35	38	42	47	58	69	77	0.
.7	39	42	44	50	55	68	81	91	0.
.8	45	48	51	57	63	78	92	104	0.
.9	51	55	58	65	71	88	105	118	0.
1.0	57	61	65	72	80	98	117	131	0.
1.1	64	68	72	80	88	109	129	145	1.
1.2	70	75	79	88	97	119	141	159	1.
1.3	77	82	86	96	106	130	154	173	1.
1.4	84	89	94	104	115	140	166	189	1.
1.5	90	96	102	113	124	151	179	201	1.
1.6	97	103	109	122	133	162	192	215	1.
1.7	104	111	117	129	142	173	205	231	1.
1.8	111	118	125	138	151	185	218	244	1.
1.9	119	126	133	146	160	196	231	259	1.

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
2.0	126	133	141	156	170	207	244	274	2.
2.1	133	141	149	165	180	219	258	289	2.
2.2	141	149	157	175	190	231	271	304	2.
2.3	149	157	165	184	200	242	284	319	2.
2.4	156	165	173	194	210	254	298	334	3.
2.5	164	174	182	203	220	266	312	349	3.
2.6	172	182	191	212	230	278	325	365	3.
2.7	180	190	200	222	240	290	339	380	3.
2.8	189	199	209	231	251	303	354	396	3.
2.9	197	208	218	240	262	315	370	412	4.
3.0	206	217	228	250	272	328	383	428	4.
3.1	214	226	237	260	283	340	398	444	4.
3.2	223	235	247	271	294	353	412	460	5.
3.3	232	244	256	282	305	366	427	476	5.
3.4	241	254	266	292	316	379	445	492	6.
3.5	250	262	276	303	327	392	457	508	6.
3.6	259	273	286	313	339	405	472	525	6.
3.7	268	282	296	324	350	419	487	541	6.
3.8	277	292	306	335	362	432	502	556	7.
3.9	287	302	316	345	373	446	517	576	7.

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
4.0	296	311	326	356	385	459	533	593	7.
4.1	306	321	336	367	397	473	549	610	7.
4.2	316	332	347	378	409	487	565	628	8.
4.3	326	342	358	389	421	501	580	645	8.
4.4	336	352	369	400	433	515	596	662	9.
4.5	346	362	380	412	446	529	612	680	9.
4.6	356	373	391	424	458	543	629	698	10.
4.7	366	384	402	436	471	558	645	715	10.
4.8	377	395	413	448	484	572	661	733	11.
4.9	387	406	424	460	496	587	678	751	11.
5.0	398	417	435	472	509	602	694	769	12.
5.1	409	428	446	484	522	617	711	787	12.
5.2	420	439	457	497	535	632	728	806	13.
5.3	431	451	469	509	548	647	745	824	13.
5.4	442	462	481	522	562	662	762	843	14.
5.5	453	474	493	535	575	677	779	861	14.
5.6	464	485	505	548	589	693	796	880	14.
5.7	476	497	517	561	603	708	814	899	15.
5.8	487	509	529	574	616	724	831	918	16.
5.9	499	521	543	587	630	740	849	937	16.

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
6.0	511	533	555	600	644	756	867	956	17.
6.1	523	546	568	614	659	771	884	975	17.
6.2	535	558	581	627	673	787	902	995	18.
6.3	547	571	594	640	687	804	920	1014	19.
6.4	559	583	607	654	702	820	939	1034	19.
6.5	572	596	620	668	716	837	957	1054	20.
6.6	584	609	633	682	731	853	975	1074	21.
6.7	597	622	646	696	746	870	994	1094	21.
6.8	609	635	659	710	761	886	1012	1114	22.
6.9	622	648	673	725	776	903	1031	1134	22.
7.0	635	661	687	739	791	920	1050	1154	23.
7.1	648	675	701	753	806	938	1069	1175	23.
7.2	661	688	715	768	822	955	1088	1195	24.
7.3	675	701	729	783	837	972	1107	1216	25.
7.4	688	715	740	798	852	989	1126	1237	25.
7.5	701	729	757	813	868	1007	1146	1257	26.
7.6	715	743	771	828	884	1024	1165	1278	26.
7.7	729	756	785	843	900	1043	1185	1299	27.
7.8	742	770	799	859	916	1060	1204	1321	28.
7.9	756	784	814	873	932	1078	1224	1342	29.

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
8.0	770	800	829	889	948	1096	1244	1363	30
8.1	784	815	844	904	964	1114	1265	1385	30
8.2	799	829	859	920	981	1132	1285	1407	31
8.3	813	844	874	936	998	1151	1305	1428	31
8.4	827	859	889	952	1014	1169	1325	1450	32
8.5	842	874	904	968	1031	1188	1346	1472	33
8.6	857	889	919	984	1048	1207	1366	1494	34
8.7	871	904	934	1000	1065	1226	1387	1516	34
8.8	886	920	950	1017	1082	1245	1408	1539	35
8.9	901	935	966	1033	1099	1263	1429	1501	36
9.0	917	949	982	1050	1116	1283	1450	1584	37
9.1	932	966	998	1066	1134	1303	1471	1606	38
9.2	947	981	1014	1083	1152	1322	1493	1629	39
9.3	963	997	1030	1100	1169	1342	1514	1652	40
9.4	979	1013	1046	1117	1187	1361	1536	1675	41
9.5	994	1029	1063	1134	1205	1381	1557	1698	42
9.6	1010	1045	1080	1151	1223	1401	1579	1721	43
9.7	1026	1061	1097	1179	1241	1421	1600	1744	43
9.8	1042	1077	1114	1196	1259	1441	1622	1768	44
9.9	1058	1094	1131	1214	1278	1461	1644	1791	45

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
10.0	1075	1110	1148	1222	1296	1481	1667	1815	46
10.1	1091	1128	1165	1240	1315	1502	1689	1839	47
10.2	1108	1145	1182	1258	1334	1522	1711	1862	48
10.3	1124	1162	1199	1276	1352	1543	1734	1886	49
10.4	1141	1179	1216	1294	1371	1564	1756	1911	50
10.5	1158	1196	1234	1312	1390	1585	1779	1935	51
10.6	1175	1213	1252	1330	1409	1606	1802	1959	52
10.7	1192	1231	1270	1349	1428	1627	1825	1983	53
10.8	1209	1248	1288	1367	1448	1648	1848	2008	54
10.9	1226	1266	1306	1386	1468	1669	1871	2032	55
11.0	1243	1283	1324	1405	1487	1690	1894	2057	56
11.1	1261	1303	1342	1424	1507	1712	1919	2082	57
11.2	1278	1319	1316	1443	1527	1734	1941	2107	58
11.3	1295	1337	1378	1462	1546	1755	1965	2132	59
11.4	1314	1356	1397	1481	1566	1777	1989	2158	60
11.5	1332	1374	1416	1501	1587	1800	2012	2183	61
11.6	1350	1392	1435	1520	1607	1822	2036	2208	62
11.7	1368	1410	1454	1540	1627	1844	2060	2234	63
11.8	1386	1429	1473	1560	1648	1866	2084	2260	64
11.9	1404	1448	1492	1580	1668	1888	2109	2285	66

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
12.0	1423	1467	1511	1600	1689	1911	2133	2311	67
12.1	1441	1486	1530	1620	1710	1933	2158	2337	68
12.2	1460	1505	1549	1640	1731	1956	2182	2363	69
12.3	1479	1524	1569	1660	1752	1979	2207	2389	70
12.4	1498	1543	1589	1681	1773	2002	2232	2415	71
12.5	1517	1562	1609	1701	1794	2025	2257	2442	72
12.6	1536	1582	1629	1722	1815	2048	2282	2469	73
12.7	1555	1602	1649	1742	1837	2071	2307	2495	74
12.8	1574	1622	1669	1763	1859	2095	2332	2522	76
12.9	1594	1641	1689	1784	1880	2118	2357	2549	77
13.0	1614	1661	1709	1805	1902	2143	2383	2576	78
13.1	1633	1680	1729	1826	1924	2166	2408	2603	79
13.2	1653	1702	1750	1848	1946	2190	2434	2630	80
13.3	1673	1722	1771	1869	1968	2214	2460	2658	81
13.4	1692	1742	1792	1890	1990	2238	2486	2685	83
13.5	1712	1762	1813	1912	2012	2262	2512	2713	84
13.6	1733	1784	1834	1934	2035	2286	2538	2740	85
13.7	1753	1804	1855	1956	2057	2310	2564	2768	86
13.8	1773	1825	1876	1978	2080	2335	2591	2796	87
13.9	1794	1846	1897	2000	2102	2359	2617	2824	89

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
14.0	1815	1867	1918	2022	2126	2385	2644	2852	91
14.1	1836	1888	1940	2044	2149	2410	2670	2880	92
14.2	1857	1909	1962	2067	2172	2435	2697	2908	93
14.3	1878	1931	1984	2089	2195	2459	2724	2937	94
14.4	1899	1952	2006	2112	2218	2484	2751	2965	96
14.5	1920	1974	2028	2135	2242	2511	2779	2994	97
14.6	1942	1996	2050	2158	2266	2535	2806	3023	98
14.7	1963	2017	2072	2181	2289	2560	2833	3052	100
14.8	1985	2039	2094	2204	2313	2585	2861	3081	101
14.9	2007	2061	2116	2227	2336	2612	2899	3110	103
15.0	2028	2083	2138	2250	2361	2639	2917	3139	104
15.1	2050	2106	2161	2273	2385	2665	2944	3168	105
15.2	2072	2128	2184	2297	2409	2691	2972	3198	107
15.3	2094	2151	2207	2320	2433	2717	3000	3227	108
15.4	2117	2173	2230	2344	2458	2744	3028	3257	110
15.5	2139	2196	2253	2368	2482	2770	3057	3287	111
15.6	2161	2219	2276	2392	2508	2797	3085	3316	112
15.7	2184	2242	2299	2416	2531	2823	3113	3346	114
15.8	2207	2265	2322	2440	2557	2850	3142	3376	115
15.9	2229	2288	2346	2469	2582	2877	3171	3407	117

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
16.0	2252	2311	2370	2489	2607	2904	3200	3437	119
16.1	2275	2335	2394	2514	2632	2931	3229	3467	120
16.2	2298	2358	2418	2538	2658	2958	3258	3498	122
16.3	2321	2382	2442	2563	2683	2985	3287	3529	123
16.4	2345	2405	2466	2588	2708	3012	3316	3559	125
16.5	2368	2429	2490	2613	2734	3040	3346	3590	126
16.6	2392	2453	2514	2638	2761	3067	3375	3621	127
16.7	2415	2477	2538	2663	2786	3095	3405	3652	129
16.8	2439	2501	2562	2688	2812	3124	3434	3684	131
16.9	2463	2525	2587	2713	2839	3151	3464	3715	132
16.0	2487	2550	2612	2739	2864	3180	3494	3746	134
17.1	2511	2575	2637	2765	2891	3208	3524	3778	135
17.2	2535	2599	2662	2790	2917	3236	3554	3809	137
17.3	2560	2624	2687	2816	2944	3265	3584	3841	139
17.4	2584	2649	2712	2842	2970	3293	3615	3873	140
17.5	2609	2674	2737	2868	2997	3322	3646	3905	142
17.6	2633	2699	2762	2894	3025	3350	3677	3937	143
17.7	2658	2724	2788	2920	3051	3379	3708	3969	145
17.8	2683	2749	2814	2947	3078	3408	3738	4002	147
17.9	2708	2774	2840	2973	3106	3437	3769	4034	148

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
18.0	2733	2800	2866	3000	3133	3467	3800	4067	150
18.1	2759	2826	2892	3027	3161	3496	3831	4099	151
18.2	2784	2851	2918	3054	3189	3525	3862	4132	153
18.3	2809	2877	2944	3081	3216	3554	3893	4165	155
18.4	2835	2903	2970	3108	3244	3584	3925	4198	156
18.5	2861	2929	2996	3135	3272	3614	3957	4231	158
18.6	2887	2955	3023	3162	3300	3644	3988	4264	160
18.7	2912	2981	3050	3190	3328	3674	4020	4297	161
18.8	2938	3007	3077	3217	3356	3703	4052	4331	163
18.9	2965	3034	3104	3245	3384	3733	4084	4364	165
19.0	2991	3061	3131	3273	3412	3765	4117	4398	167
19.1	3017	3088	3158	3301	3442	3795	4149	4432	168
10.2	3044	3114	3185	3329	3470	3826	4181	4466	170
19.3	3070	3141	3212	3357	3499	3856	4213	4500	172
19.4	3097	3168	3239	3385	3528	3887	4246	4534	174
19.5	3124	3195	3367	3413	3557	3917	4279	4568	176
19.6	3151	3223	3295	3441	3586	3948	4311	4603	178
19.7	3178	3250	3323	3470	3615	3980	4344	4637	180
19.8	3205	3277	3351	3498	3644	4012	4377	4672	181
19.9	3232	3306	3379	3529	3673	4042	4411	4706	183

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
20.0	3259	3333	3407	3556	3704	4074	4444	4741	185
20.1	3287	3361	3435	3585	3734	4106	4477	4775	187
20.2	3214	3389	3463	3614	3763	4137	4511	4810	188
20.3	3342	3417	3491	3643	3793	4169	4544	4845	190
20.4	3370	3445	3520	3672	3823	4201	4578	4880	192
20.5	3398	3473	3549	3702	3854	4232	4612	4916	194
20.6	3426	3501	3578	3731	3884	4265	4646	4951	196
20.7	3454	3530	3607	3761	3914	4297	4680	4986	198
20.8	3482	3558	3636	3790	3944	4330	4714	5022	200
20.9	3510	3587	3665	3820	3975	4362	4748	5058	202
21.0	3539	3617	3694	3850	4006	4394	4783	5094	204
21.1	3567	3646	3723	3880	4036	4427	4817	5130	206
21.2	3596	3675	3752	3910	4067	4460	4852	5167	208
21.3	3625	3704	3782	3940	4098	4493	4886	5203	210
21.4	3654	3733	3812	3970	4129	4526	4921	5275	212
21·5	3683	3763	3842	4001	4160	4559	4956	5312	214
21.6	3712	3792	3872	4032	4192	4592	4991	5349	216
21.7	3741	3822	3902	4063	4223	4625	5026	5385	218
24.8	3770	3852	3932	4094	4255	4659	5062	5422	220
21.9	3809	3881	3962	4125	4286	4692	5097	5459	222

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
22 0	3830	3911	3992	4156	4318	4726	5133	5459	224
22 1	3859	3941	4022	4187	4350	4760	5168	5496	226
22.2	3889	3971	4053	4219	4382	4794	5204	5534	228
22.3	3919	4002	4084	4250	4415	4828	5240	5571	230
22.4	3949	4032	4115	4281	4447	4862	5276	5608	232
22.5	3979	4063	4146	4313	4479	4896	5312	5646	234
22.6	4009	4093	4177	4345	4511	4930	5348	5683	236
22.7	4040	4124	4208	4376	4544	4965	5384	5721	238
22.8	4070	4155	4239	4408	4577	4999	5420	5759	240
22.9	4101	4186	4270	4440	4609	5034	5457	5797	243
23.0	4132	4217	4301	4472	4643	5069	5494	5835	245
23.1	4162	4248	4333	4502	4676	5103	5530	5873	247
23.2	4193	4279	4365	4536	4709	5138	5567	5912	249
23.3	4224	4311	4397	4569	4742	5174	5604	5950	251
23.4	4255	4342	4429	4601	4776	5209	5641	5989	254
23.5	4287	4374	4460	4631	4809	5244	5678	6027	256
22.6	4318	4406	4493	4667	4843	5279	5715	6066	258
23.7	4349	4437	4525	4700	4876	5315	5753	6105	260
23.8	4381	4469	4567	4733	4910	5350	5790	6144	263
23.9	4413	4501	4599	4766	4944	5386	5828	6183	265

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
24.0	4414	4534	4622	4800	4978	5422	5866	6222	267
24.1	4476	4566	4655	4834	5012	5458	5903	6262	269
24.2	4508	4598	4678	4867	5046	5494	5941	6301	271
24.3	4540	4631	4720	4901	5081	5530	5980	6340	274
24.4	4573	4663	4753	4935	5115	5567	6018	6380	276
24.5	4605	4695	4786	4969	5150	5603	6056	6420	278
24.6	4637	4729	4819	5003	5184	5640	6095	6460	280
34.7	4670	4762	4853	5037	5219	5676	6133	6500	282
24.8	4703	4795	4886	5071	5254	5713	6172	6540	285
24.9	4735	4828	4920	5105	5289	5750	6210	6580	287
25·0	4769	4861	4954	5139	5324	5787	6250	6620	289
25.1	4802	4895	4987	5173	5359	5824	6288	6661	291
25.2	4835	4928	5021	5208	5395	5861	6327	6701	294
25.3	4868	4962	5055	5242	5430	5899	6367	6742	296
25.4	4901	4996	5089	5277	5465	5936	6406	6783	299
25.5	4935	5029	5124	5312	5502	5974	6445	6824	301
25.6	4968	5063	5158	5347	5537	6011	6485	6865	303
25.7	5002	5097	5192	5382	5573	6049	6524	6906	306
25.8	5036	5131	5227	5418	5609	6087	6564	6947	308
25.9	5070	5166	5261	5453	5645	6125	6604	6987	311

Hosted by Google

Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
26.0	5104	5200	5296	5489	5681	6163	6644	7030	313
26.1	5138	5235	5331	5524	5718	6201	6684	7071	315
26.2	5172	5269	5366	5560	5754	6240	6724	7113	318
26.3	5206	5304	5401	5596	5791	6278	6764	7155	320
26.4	5241	5339	5436	5632	5828	6317	6805	7196	323
26.5	5275	5374	5471	5668	5864	6355	6845	7238	325
26.6	5310	5408	5507	5704	5901	6394	6886	7281	327
26,7	5345	5444	5542	5740	5938	6433	6927	7323	330
26.8	5380	5479	5578	5777	5975	6472	6968	7365	332
26.9	5415	5514	5613	5813	6012	6511	7009	7407	335
27.0	5450	5550	5650	5850	6050	6550	7050	7450	337
27.1	5485	5586	5686	5887	6087	6590	7091	7493	340
27.2	5521	5621	5722	5924	6125	6629	7132	7535	342
27.3	5556	5657	5758	5961	6163	6669	7173	7578	345
27.4	5592	5693	5794	5998	6206	6708	7215	7624	347
27.5	5627	5729	5831	6035	6238	6748	7256	7664	350
27.6	5663	5765	5867	6072	6276	6788	7298	7708	353
27.7	5699	5801	5904	6109	6314	6828	7340	7751	355
27.8	5736	5838	5940	6147	6353	6868	7381	7794	358
27.9	5771	5874	5977	6184	6391	6908	7423	7838	360

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
28.0	5807	5911	6015	6222	6430	6948	7466	7881	363
28.1	5844	5948	6052	6260	6468	6989	7508	7925	366
28.2	5880	5984	6089	6298	6507	7029	7550	7969	368
28.3	5917	6021	6126	6336	6546	7070	7593	8013	371
28.4	5953	6058	6163	6374	6585	7111	7635	8057	374
28.5	5990	6095	6201	6412	6624	7152	7678	8101	376
28 6	6027	6133	6238	6450	6663	7192	7721	8146	379
28.7	6064	6170	6276	6489	6702	7235	7764	8190	381
28.8	6101	6207	6314	6527	6741	7275	7807	8235	384
28.9	6139	6245	6352	6566	6780	7316	7851	8279	387
29.0	6176	6283	6391	6605	6820	7357	7894	8324	389
29.1	6213	6321	6429	6644	6860	7399	7937	8369	392
29.2	6251	6359	6467	6683	6900	7441	7980	8414	395
29.3	6289	6397	6505	6722	6940	7482	8024	8459	397
29.4	6326	6434	6544	6761	6980	7524	8068	8504	400
29.5	6364	6473	6582	6801	7020	7566	8112	8550	403
29.6	6402	6511	6622	6841	7060	7608	8156	8595	406
29.7	6440	6550	6661	6880	7100	7651	8200	8640	409
29.8	6479	6588	6700	6920	7141	7693	8244	8686	411
29.9	6517	6627	6739	6960	7181	7735	8288	8732	414

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
30.0	6556	6666	6778	7000	7222	7777	8333	8778	417
30.1	6594	6706	6817	7040	7263	7820	8377	8824	420
30.2	6633	6745	6856	7080	7304	7863	8422	8870	423
30.3	6672	6784	6896	7120	7345	7906	8466	8916	425
30.4	6711	6823	6936	7160	7386	7949	8511	8962	428
30.5	6750	6863	6975	7201	7427	7992	8556	9009	431
30.6	6789	6902	7015	7241	7469	8035	8601	9055	434
30.7	6828	6942	7055	7282	7510	8078	8646	9102	437
30.8	6867	6981	7095	7323	7551	8122	8692	9149	439
30.9	6907	7021	7136	7364	7593	8165	8737	9196	442
31.0	6946	7061	7176	7405	7635	8209	8783	9243	445
31.1	6986	7101	7216	7446	7677	8253	8828	9290	448
31.2	7026	7141	7257	7487	7719	8297	8874	9337	451
31.3	7066	7182	7297	7529	7761	8341	8920	9384	453
31.4	7106	7222	7338	7570	7803	8385	8966	9432	456
31.5	7146	7263	7379	7612	7846	8429	9012	9479	459
31.6	7186	7303	7420	7654	7888	8474	9058	9527	462
31.7	7226	7344	7461	7696	7931	8518	9104	9575	465
31.8	7267	7385	7502	7738	7973	8562	9150	9622	468
31.9	7307	7426	7544	7780	8016	8607	9197	9670	471

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
32.0	7348	7467	7585	7822	8059	8652	9244	9719	474
32.1	7389	7508	7627	7864	8102	8697	9290	9767	477
32.2	7430	7550	7668	7907	8145	8742	9337	9815	480
32.3	7471	7591	7710	7949	8189	8787	9384	9863	482
32.4	7512	7633	7752	7992	8232	8832	9432	9912	485
32.5	7553	7674	7794	8035	8275	8877	9479	9961	488
32.6	7594	7716	7837	8078	8319	8923	9526	10009	491
32.7	7636	7758	7879	8121	8362	8968	9573	10058	494
32.8	7677	7800	7921	8164	8406	9014	9621	10107	498
32.9	7719	7842	7964	8207	8450	9059	9668	10156	501
33.0	7761	7884	8005	8250	8494	9105	9716	10206	504
33.1	7803	7926	8048	8293	8538	9152	9763	10255	507
33.2	7845	7968	8090	8337	8583	9198	9811	10304	510
33.3	7887	8011	8133	8381	8627	9244	9860	10354	513
33.4	7929	8054	8176	8424	8671	9290	9908	10403	516
33.5	7972	8096	8219	8468	8716	9337	9056	10452	519
33.6	8014	8136	8263	8512	8760	9383	10005	10503	522
33.7	8057	8182	8306	8556	8805	g430	10053	10553	525
33.8	8099	8225	8349	8600	8850	9476	10102	10603	529
38.9	8142	8268	8393	8644	8895	9523	10151	10653	532

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
34.0	8185	8311	8437	8689	8941	9570	10200	10704	535
34.1	8228	8355	8481	8733	8986	9617	10248	10754	538
34.2	8271	8398	8524	8778	9031	9665	10297	10805	541
34.3	8315	8442	8568	8822	9077	9712	10347	10855	544
34.4	8358	8486	8612	8867	9122	9759	10396	10906	547
34.5	8401	8529	8657	8912	9168	9807	10445	10957	550
34.6	8445	8573	8701	8957	9214	9854	10495	11008	553
34.7	8489	8617	8745	9002	9260	9902	10544	11059	557
34.8	8532	8661	8789	9048	9306	9950	10594	11110	560
34.9	8576	8706	8834	9093	9352	9998	10644	11161	563
35.0	8620	8750	8879	9139	9398	10045	10694	11213	567
35.1	8664	8795	8924	9185	9444	10093	10744	11264	570
35.2	8709	8839	8969	9231	9491	10142	10794	11316	573
35.3	8753	8884	9014	9277	9537	10190	10844	11368	577
35.4	8797	8929	9059	9323	9584	10238	10895	11420	580
35.5	8842	8974	9105	9369	9630	10287	10945	11472	583
35.6	8887	9018	9150	9415	9678	10336	10996	11524	586
35.7	8931	9064	9195	9461	9724	10385	11047	11576	590
35.8	8976	9109	9241	9507	9771	10433	11097	11628	593
35.9	9021	9154	9286	9553	9818	10482	11148	11681	597

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
36.0	9067	9200	9334	9600	9867	10533	11200	11733	600
36.1	9112	9245	9379	9647	9914	10583	11251	11786	603
36.2	9157	9291	9425	9694	9962	10632	11302	11839	607
36.3	9203	9337	9471	9741	10009	10682	11353	11892	610
36.4	9248	9383	9517	9788	10057	10731	11405	11944	614
36.5	9294	9429	9564	9835	10105	10781	11456	11998	617
36.6	9340	9475	9610	9882	10153	10831	11508	12051	620
36.7	9385	9521	9656	9930	10201	10881	11560	12104	624
36.8	9431	9567	9703	9977	10249	10931	11611	12158	627
36.9	9478	9614	9750	10024	10298	10981	11663	12211	631
37.0	9524	9661	9799	10072	10346	11031	11716	12265	634
37.1	9570	9707	9844	10120	10395	11082	11768	12318	637
37.2	9617	9754	9892	10168	10443	11132	11820	12372	641
37.3	9663	9801	9939	10216	10492	11183	11873	12426	644
37.4	9710	9848	9986	10264	10541	11234	11925	12480	648
37.5	9757	9895	10034	10312	10590	11285	11978	12535	651
37.6	9804	9942	10082	10360	10639	11336	12031	12589	654
37.7	9857	9990	10129	10409	10688	11386	12084	12643	658
37.8	9898	10037	10177	10457	10738	11438	12137	12698	661
37.9	9945	10085	10208	10506	10787	11489	12190	12753	665

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
38.0	9993	10133	10274	10555	10837	11540	12244	12807	668
38.1	10040	10181	10322	10604	10887	11592	12297	12862	672
38.2	10088	10229	10370	10653	10936	11645	12350	12917	676
38.3	10135	10277	10419	10702	10986	11697	12404	12972	679
38.4	10183	10326	10467	10751	11036	11749	12458	13027	682
38.5	10231	10374	10515	10801	11086	11801	12512	13083	686
38.6	10279	10422	10564	10851	11137	11853	12566	13138	690
38.7	10327	10471	10613	10900	11187	11905	12620	13194	694
38.8	10375	10519	10662	10950	11237	11957	12674	13250	697
38.9	10424	10568	10711	11000	11288	12010	12728	13305	701
39.0	10472	10617	10761	11050	11339	12061	12783	13361	704
39.1	10521	10666	10810	11100	11390	12114	12837	13417	708
39.2	10569	10717	10859	11150	11440	12167	12892	13473	712
39.3	10618	10764	10909	11200	11491	12219	12946	13529	715
39.4	10667	10813	10958	11250	11543	12272	13001	13586	719
39.5	10716	10863	11008	11301	11594	12326	13056	13646	723
39.6	10765	10912	11059	11352	11645	12379	13112	13699	726
39.7	10815	10962	11109	11403	11697	12432	13167	13755	729
39.8	10864	11011	11159	11454	11748	12485	13222	13812	733
39.9	10913	11061	11209	11505	11800	12539	13278	13869	737

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
40.0	10963	11111	11259	11556	11852	12593	13333	13926	741
40.1	11013	11161	11310	11607	11904	12646	13389	13983	744
40.2	11062	11211	11360	11658	11956	12700	13445	14041	748
40.3	11112	11262	11411	11709	12008	12754	13500	14097	752
40.4	11162	11312	11462	11761	12060	12808	13556	14155	756
40.5	11213	11362	11513	11813	12113	12862	13612	14212	759
40.6	11263	11413	11563	11864	12165	12917	13669	14270	763
40.7	11313	11464	11615	11916	12218	12971	13725	14328	767
40.8	11364	11515	11666	11968	12270	13026	13781	14386	771
40.9	11414	11566	11717	12020	12323	13080	13838	14444	774
41.0	11465	11617	11769	12072	12376	13135	13894	14502	778
41.1	11516	11668	11820	12125	12429	13190	13951	14560	782
41.2	11567	11719	11872	12177	12482	13245	14008	14618	786
41.3	11618	11771	11923	12229	12535	13310	14065	14677	789
41.4	11669	11822	11975	12282	12589	13365	14122	14735	793
41.5	11720	11874	12027	12335	12642	13421	14179	14794	797
41.6	11771	11925	12079	12388	12696	13476	14236	14853	801
41.7	11823	11977	12132	12440	12749	13522	14294	14911	805
41.8	11874	12029	12184	12494	12803	13577	14351	14970	809
41.9	11926	12081	12236	12547	12857	13633	14409	15030	813

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
42.0	11978	12133	12289	12600	12911	13689	14467	15089	816
42.1	12030	12186	12342	12653	12965	13745	14525	15148	821
42.2	12082	12238	12394	12707	13019	13801	14582	15208	824
42.3	12134	12291	12447	12761	13074	13857	14640	15267	828
42.4	12186	12343	12500	12814	13128	13913	14699	15327	832
42.5	12238	12396	12553	12868	13183	13970	14757	15387	836
42.6	12291	12449	12606	12922	13238	14026	14815	15446	840
42.7	12343	12502	12660	12976	13292	14083	14874	15506	844
42.8	12396	12555	12713	13030	13347	14140	14932	15566	848
42.9	12449	12608	12767	13084	13402	14197	14991	15627	852
43.0	12502	12661	12820	13139	13457	14254	15050	15687	856
43.1	12555	12715	12874	13193	13513	14311	15109	15747	860
43.2	12608	12768	12928	13248	13568	14368	15168	15808	864
43.3	12661	12822	12982	13303	13623	14425	15227	15869	868
43.4	12715	12875	13036	13358	13679	14483	15286	15929	872
43.5	12768	12929	13090	13412	13735	14540	15346	15990	876
43.6	12822	12983	13145	13468	13790	14598	15405	16051	880
43.7	12875	13037	13199	13523	13846	14656	15465	16112	884
43.8	12929	13091	13254	13578	13902	14714	15525	16173	888
43.9	12983	13146	13308	13633	13958	14771	15584	16235	892

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
44.0	13037	13200	13363	13689	14015	14830	15644	16296	896
44.1	13091	13254	13418	13745	14071	14888	15705	16358	900
44.2	13145	13309	13473	13800	14128	14946	15765	16419	904
44.3	13200	13364	13528	13856	14184	15005	15825	16482	908
44.4	13254	13419	13583	13912	14241	15063	15885	16543	913
44.5	13309	13474	13638	13968	14298	15122	15946	16605	917
44.6	13363	13529	13694	14024	14355	15180	16006	16667	921
44.7	13418	18584	13749	14080	14412	15239	16067	16729	925
44.8	13473	13639	13805	14137	14469	15298	16128	16792	929
44.9	13528	13694	13861	14193	14526	15357	16189	16854	933
45.0	13583	13750	13917	14250	14583	15417	16250	16917	937
45.1	13639	13806	13973	14307	14641	15476	16311	16979	941
45.2	13694	13861	14029	14364	14699	15535	16372	17042	946
45.3	13749	13917	14085	14421	14756	15595	16434	17105	950
45.4	13805	13973	14141	14478	14814	15655	16495	17168	954
45.5	13861	14029	14198	14535	14872	15714	16557	17231	958
45.6	13916	14085	14254	14592	14930	15774	16619	17294	962
45.7	13972	14142	14311	14649	14989	15834	16670	17358	966
45.8	14028	14198	14368	14707	15047	15894	16742	17421	970
45.9	14084	14254	14424	14765	15105	15954	16804	17484	974

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
46.0	14141	14311	14481	14822	15164	16015	16867	17548	979
46.1	14197	14368	14539	14880	15223	16075	16929	17612	983
46.2	14254	14425	14596	14938	15281	16136	16991	17676	987
47.3	14310	14482	14653	14996	15340	16196	17054	17740	992
46.4	14367	14539	14711	15054	15399	16257	17116	17804	997
46.5	14424	14596	14768	15112	15458	16318	17179	17868	1001
46.6	14480	14653	14826	15171	15516	16379	17242	17932	1005
46.7	14528	14710	14883	15229	15575	16440	17305	17997	1009
46.8	14585	14768	14941	15288	15636	16501	17368	18061	1014
46.9	14642	14826	14999	15347	15695	16563	17431	18126	1018
47.0	14709	14883	15057	15406	15755	16624	17494	18191	1023
47.1	14767	14941	15116	15465	15814	16686	17558	18256	1027
47.2	14824	14999	15174	15524	15874	16747	17621	18321	1031
47.3	14882	15057	15232	15582	15934	16809	17685	18386	1035
47.4	14940	15115	15291	15642	15994	16871	17749	18451	1040
47.5	14998	15174	15350	15701	16054	16933	17812	18516	1045
47.6	15056	15232	15408	15761	16114	16995	17876	18582	1049
47.7	15114	15290	15467	15820	16174	17057	17940	18647	1053
47.8	15172	15349	15526	15880	16234	17119	18005	18713	1058
47.9	15230	15408	15585	15940	16295	17182	18069	18779	1062

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Depth of Cut or Fill.	WIDTH OF BASE.								Cor.
	14	15	16	18	20	25	30	34	
48.0	15289	15467	15644	16000	16356	17244	18133	18844	1066
48.1	15347	15526	15704	16061	16416	17307	18193	18910	1071
48.2	15406	15585	15763	16120	16477	17370	18262	18976	1076
48.3	15465	15644	15823	16181	16538	17433	18327	19043	1080
48.4	15524	15703	15882	16241	16599	17496	18392	19109	1084
48.5	15583	15762	15942	16301	16661	17559	18487	19175	1089
48.6	15642	15822	16002	16362	16722	17672	18522	19242	1094
48.7	15701	15882	16062	16423	16783	17685	18587	19309	1099
48.8	15761	15941	16122	16484	16845	17749	18652	19375	1103
48.9	15820	16001	16182	16545	16907	17812	18718	19442	1107
49.0	15880	16061	16242	16606	16969	17876	18783	19509	1112
49.1	15939	16121	16303	16667	17030	17940	18849	19576	1116
49.2	16000	16181	16363	16728	17092	18004	18915	19644	1121
49.3	16059	16242	16424	16789	17155	18068	18980	19711	1125
49.4	16119	16302	16485	16851	17216	18132	19046	19778	1129
49.5	16179	16363	16546	16913	17279	18196	19112	19846	1134
49.6	16239	16423	16607	16974	17342	18260	19179	19913	1139
49.7	16300	16484	16668	17036	17404	18325	19245	19981	1144
49.8	16359	16545	16729	17098	17467	18389	19311	20049	1149
49.9	16421	16606	16890	17160	17530	18454	19378	20117	1153
50.0	16481	16667	16852	17222	17593	18510	19444	20185	1157

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